IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-3, 5-6, 8-10, 12-13, 15-17, 19-20, and ADD new claims 22-27 in accordance with the following:

1.   (currently amended) A discrete cosine transform (DCT)-based motion image encoding method that uses a plurality of modified quantization weight matrices, the method comprising:

selecting one of the plurality of modified quantization weight matrices based on ~~noise information from~~ a characteristic of input image data;

performing DCT on the input image data; and

performing quantization on the DCT input image data using the selected modified ~~quanitzation~~ quantization weight matrix.

2.   (currently amended) The method of claim 1, wherein the characteristic of input image data is noise information from the input image data, and the plurality of modified quantized weight matrices are classified based on the noise information regarding the input image data.

3.   (currently amended) The method of claim [[1]]2, wherein the noise information is a ratio of an input image variance to a noise variance.

4.   (original) The method of claim 1, further comprising performing inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

5.   (currently amended) A DCT-based motion image encoding method, comprising:

creating a modified quantization weight matrix using ~~noise information from~~ a characteristic of input image data;

performing DCT on the input image data; and

performing quantization on the DCT input image data using the modified quantization weight matrix.

6.   (currently amended) The method of claim 5, wherein the characteristic of input image data is noise information from the input image data, and the noise information is a ratio of an input image variance to a noise variance.

7.   (original) The method of claim 5, further comprising performing inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

8.   (currently amended) A DCT-based motion image encoding apparatus that uses a plurality of modified quantization weight matrices, the apparatus comprising:

a modified quantization weight matrix storage unit which stores the plurality of modified quantization weight matrices;

a modified quantization weight matrix determination unit which selects one of the plurality of modified quantization weight matrices based on ~~noise information from~~ a characteristic of input image data;

a DCT unit which performs DCT on the input image data; and

a quantization unit which performs quantization on the DCT transformed data using the selected modified quantization weight matrix.

9.   (currently amended) The apparatus of claim 8, wherein the characteristic of input image data is noise information from the input image data, and the plurality of modified quantization weight matrices are classified based on the noise information from the input image data.

10.   (currently amended) The apparatus of claim 8-9, wherein the noise information is a ratio of an input image variance to a noise variance.

11.   (original) The apparatus of claim 8, further comprising an inverse quantization unit which performs inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

12.   (currently amended) A DCT-based motion image encoding apparatus, comprising:

a modified quantization weight matrix creation unit which creates a modified quantization weight matrix based on noise information from a characteristic of input image data;

a DCT unit which performs DCT on the input image data; and

a quantization unit which performs quantization on the DCT transformed data using the created modified quantization weight matrix.

13.   (currently amended) The apparatus of claim 12, wherein the characteristic of input image data is noise information from the input image data, and the noise information is a ratio of an input image variance to a noise variance.

14.   (original) The apparatus of claim 12, further comprising an inverse quantization unit which performs inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

15.   (currently amended) A computer-readable medium having stored thereon computer-executable instructions to perform discrete cosine transform (DCT)-based motion image encoding by:

selecting one of the plurality of modified quantization weight matrices based on ~~noise information from~~ a characteristic of input image data;

performing DCT on the input image data; and

performing quantization on the DCT input image data using the selected modified ~~quanitzation~~ quantization weight matrix.

16.   (currently amended) The computer readable medium of claim 15, wherein the characteristic of input image data is noise information from the input image data, and the plurality of modified quantized weight matrices are classified based on the noise information regarding the input image data.

17.   (currently amended) The computer readable medium of claim ~~15~~ 16, wherein the noise information is a ratio of an input image variance to a noise variance.

18.   (original) The computer readable medium of claim 15, further comprising performing inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

19.   (currently amended) A computer readable medium having stored thereon computer executable instructions to perform a DCT-based motion image encoding method by:

creating a modified quantization weight matrix using ~~noise information from~~ a characteristic of input image data;

performing DCT on the input image data; and

performing quantization on the DCT input image data using the modified quantization weight matrix.

20.   (currently amended) The computer readable medium of claim 19, wherein the characteristic of input image data is noise information from the input image data, and the noise information is a ratio of an input image variance to a noise variance.

21.   (original) The computer readable medium of claim 19, further comprising performing inverse quantization on the quantized data,

wherein the inverse quantization is performed using a default quantization weight matrix.

22.   (new) The method of claim 1, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component Y of the input image data.

23.   (new) The method of claim 22, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component U and component V of the input image data.

24.   (new) The apparatus of claim 8, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component Y of the input image data.

25.   (new) The apparatus of claim 24, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component U and component V of the input image data.

26.   (new) The computer-readable medium of claim 15, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component Y of the input image data.

27.   (new) The computer-readable medium of claim 26, wherein the plurality of modified quantization weight matrices comprises a plurality of modified quantization weight matrices for component U and component V of the input image data.

Amendment of Claims:

Claims 1-3, 5-6, 8-10, 12-13, 15-17, and 19-20 have been amended for clarity, and new claims 22-27 have been added in accordance with the description in lines 7-11 of page 11 of the specification. No new matter has been added.

Provisional Election of Claims Pursuant to 37 CFR §1.142

Applicants elect Species I, FIG. 10, without traverse, and claims 1-4, 8-11, and 15-18, and new claims 22-27.. Claims 1-3, 5-6, 8-10, 12-13, 15-17, and 19-20 have been amended for clarity. The added claims are based on the description in lines 7-11 of page 11 of the specification. Applicants reserve the right to further prosecute without prejudice all non-elected inventions and related claims.

If there are any additional fees associated with this Response, please charge same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _April 20, 2007_   By: _Darleen J. Hockley_
                                        Darleen J. Stockley
                                        Registration No. 34,257

1201 New York Ave., N.W., Ste. 700
Washington, D.C. 20005
(202) 434-1500